// bring IT home

1 Economy Corporation

Michael J. Copps
Acting Chairman
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Chairman Copps,

One Economy is pleased to submit the following comments on grant procedures with respect to Section 6001 of the American Recovery and Reinvestment Act of 2009. We thank you in advance for your consideration of these opinions.

One Economy is a global non-profit with the mission to maximize the power of technology to help low income people improve their lives and enter the economic mainstream. We have a classic supply/demand strategy that leverages resources to ensure broadband is available and adopted. During our nine years of operation One Economy has brought affordable broadband into the homes of more than 350,000 individuals and continues to provide "public purpose" online content through our various media websites. Additionally, we have employed nearly 3,000 youth to serve as digital adoption experts in urban and rural communities.

Many have come to recognize One Economy as an expert on affordable broadband and adoption initiatives. Recently, our Senior Vice President Dr. Nicol Turner Lee testified at a subcommittee hearing about the distribution of broadband stimulus funds. As part of our ongoing education work, we respectfully request a meeting to further explain our views. Thank you again for your consideration, and I look forward to discussing our comments with you in the future.

Sincerely,

Rey Ramsey
CEO
One Economy Corporation

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One Economy Corporation appreciates the opportunity to respond to United States Department of Commerce's National Telecommunication and Information Adminstration and United States Department of Agriculture's Rural Utility Services' request for comments regarding the American Recovery and Reinvestment Act (ARRA) broadband programs.

**Description of One Economy's Credentials**

Since its founding in 2000, One Economy has amassed a track record of maximizing the potential of technology to help low-income people improve their lives and enter the economic mainstream. To achieve this mission, One Economy works to ensure that broadband is available, affordable, and adopted by using a supply and demand strategy.

To date, One Economy has brought affordable broadband to over 350,000 Americans, connected over 18 million visitors to our multilingual web properties, anchored by our foundation websites The Beehive and the Public Internet Channel, and trained nearly 3,000 "Digital Connectors" to ensure broadband adoption in low-income communities.

One Economy has worked with more than 50 communities in the United States, Africa, and the Middle East to build digital inclusion programs that include helping owners of affordable housing and local housing authorities connect their residents to free or reduced-cost Internet access, developing and deploying affordable wireless networks, and providing access to affordable computers for low-income people.

One Economy has worked in both urban and rural environments, including tribal lands. Examples of such work include holistic initiatives in:

- Greene County, North Carolina: We transformed this low-income, tobacco-dependent rural community into a wired, entrepreneurially-driven community by: 1) providing last-mile broadband access to 89% of the County, including home, school, and community centers; 2) delivering training to over 600 residents through more than 100 Digital Connectors; 3) installing a local Beehive (www.beehivegreene.org); and 4) equipping over 1,600 students with MacBooks. This model has been replicated in two additional counties in North Carolina.
- Chicago, Illinois: We brought affordable broadband into over 2,000 affordable housing units, employed over 500 youth in Digital Connector programs, and partnered with the city's youth employment initiative to provide stipends to these youth. Among these youth, we have increased college enrollment and decreased truancy.

Overall, we have initiated place-based initiatives that compliment our virtual work with online resources.



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Our ongoing efforts are sustained through building the capacity of local, state, and national partners that integrate technology activities into their current program offerings.

One Economy has a long track record of fulfilling several of the statutory purposes of the BTOP program, as it: "provide[s] broadband education, awareness, training, access, equipment, and support to . . . community support organizations and entities to facilitate greater use of broadband service by or through these organizations" Sec. 6001(b)(3) & (3)(A); is an "organization[] . . . that provide[s] outreach, access, equipment, and support services to facilitate greater use of broadband service by low-income, unemployed, aged, and otherwise vulnerable populations, Sec. 6001(b)(3)(B); and "stimulate[s] the demand for broadband," Sec. 6001(b)(5).

*One Economy's Mission Regarding the Stimulus | Broadband with a Purpose*

ARRA should create "Broadband with a Purpose" using the available funds to provide access and, equally critically, to increase the adoption and utilization of broadband. These funds should be applied to make a specific and intentional effort to put poor people *first* in line to ensure maximum utility.

This mission is achievable if we think in terms of creating a 21st Century Digital Ecosystem that brings broadband access into the home, school, workplace, and community. While all of the venues are important, none are more important than the home when trying to foster adoption. Home-based access provides the only 24/7 access point and it ensures that, as a matter of policy, low-income people will have the same quality of access as higher adoption segments of the population.

## The Importance of Demand

### *Adoption*

Well-designed and well-executed broadband adoption programs are vital for America to make significant progress on achieving the President's vision that the U.S. "lead the world in broadband penetration"[1] and on realizing the economic, educative, civic engagement, and cultural benefits of universal broadband adoption by all sectors of the U.S. populace.

As the Pew Internet & American Life Project's July 2008 report on Home Broadband Adoption ("Pew Report") showed, issues related to adoption, and not deployment, constitute the most significant barrier to low-income Americans using the Internet to improve their lives. The report also hinted at an alarming decline in broadband adoption by low income Americans, well before the swoon in the economy that began in the last quarter of 2008. The report indicated that 25% of low-income

[1] *See* Obama-Biden Technology Plan, *available at http://www.barackobama.com/issues/technology/#modern-communications* (last visited April 13, 2009).



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Americans – those whose household incomes are $20,000 annually or less – reported having broadband at home in April 2008. This compares to the 28% figure reported in March 2007 among those living in households whose annual incomes are $20,000 or less. [2]

The Pew Report found that of all non-users and dial-up users, only 14% indicated that the lack of broadband availability was the reason that they did not have broadband at home. 18% of all non-broadband users and 35% of dial-up subscribers said that the price of broadband would need to fall in order to encourage them to switch to broadband service.[3] By contrast, 17% indicated that they faced non-price barriers (difficulty understanding, age, or disability) to obtaining broadband, and 51% stated in some fashion that broadband was not relevant to them. **In the aggregate, a remarkable 86% of non-broadband users primarily attributed their not using broadband at home to adoption barriers, not deployment programs.**

Emphasizing broadband *adoption* programs is consistent with the Broadband Data Services Improvement Act ("Act"), enacted in 2008. The Act recognized that the "[c]ontinued progress in the deployment and adoption of broadband technology is vital to ensuring that our Nation remains competitive and continues to create business and job growth."[4] The Act also underscored the importance of programs that increase adoption in a tangible way by authorizing the Secretary of Commerce to develop and implement statewide initiatives "to identify and track the availability and adoption of broadband services within each state."[5] The Act required eligible entities to "identify barriers to the adoption by individuals and businesses of broadband service and related information technology services…"[6] Emphasizing adoption, therefore, furthers aspirations that are already ensconced in federal law.

If we are to move the meter substantially and in a sustainable manner on broadband, adoption must accompany all deployment efforts. For this very reason, Congress made $250 million a floor, not a ceiling, for the National Telecommunications and Information Administration (NTIA) to spend on broadband adoption (in contrast to its decision to cap broadband mapping at $350 million)[7] and directed adoption funding to be part of deployment proposals.

Broadband efforts should focus on both removing barriers to adoption and maximizing unique opportunities. Broadband adoption programs should include the following:

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[2] John B. Horrigan, *Obama's Online Opportunities II*, Washington, D.C.: Pew Internet & American Life Project, January 2009, *available at* www.pewinternet.org/~/media//Files/Reports/2009/PIP_Broadband%20Barriers.pdf.

[3] *Id.*

[4] 47 U.S.C. § 1301(2).

[5] 47 U.S.C. § 1304(b)(1).

[6] 47 U.S.C. § 1304(e)(3).

[7] American Recovery and Reinvestment Act of 2009. Pub. L. No. 111-5 Div. A. Title 1.



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Broadband adoption programs must focus on increasing adoption in the home. Residential users are a critical part of demand for additional backhaul capacity that will be constructed with broadband grant dollars. Connecting residential users to broadband networks will also make home delivery of important services, such as telemedicine, job training, and distance learning possible. Emphasizing other means of broadband access will have the unintended consequence of … [1]

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- Public awareness -- outreach that is directly connected to increasing utilization of broadband by targeted populations.
- Relevant content -- content that is relevant to specific user populations and meets the statutory purposes of the broadband stimulus program. For instance, low-income populations may require targeted, local information on education, jobs and entrepreneurship, while Native Americans may require specific content relevant to Indian nations. Content should provide quality information and serve important public purposes.
- Digital literacy -- enhancing or creating know-how for the target population to use broadband technology effectively for beneficial purposes. Digital literacy programs include training in how to obtain and use technology; knowledge about the broad range of relevant and useful information that is available online at no charge, as and awareness of online education and skill development programs provided by local governments, communities, and the private sector.
- Affordability -- Internet access and hardware must be made available at affordable price points for low-income populations.

**Target Group Definitions**

***Unserved***

Unserved communities are those communities where broadband is determined to be unavailable to a preponderance of the target population or is priced so high (in excess of $60/month) to effectively make it unavailable to a preponderance of the targeted population. In these primarily rural communities, broadband needs to be provided through innovative means or subsidized in order to attract providers and users. The cost of the subsidy in unserved areas will generally be more than the cost of the subsidy in underserved areas, so we will likely get less "bang for the buck" in these areas and must spend wisely. In addition to providing access and making it affordable, we still have to employ adoption strategies, though, or these funds will fail to maximize the investment.

***Underserved***

Underserved communities are those communities where broadband is available, but it has not been adopted by a preponderance of the targeted population. An underserved community has an average adoption rate that is persistently and consistently lower than that of the national average. Examples of causes may include: low awareness of broadband; lack of relevant online content; pricing beyond the means of the target consumer; or a low level of competition.

The following sorts of measures will increase adoption in underserved communities:

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- Lower the price of broadband via stimulus funds and creative public/private partnerships that further offset the cost
- Increase the awareness of the benefits of broadband
- Promote digital literacy to increase the ability to utilize broadband
- Provide relevant content
- Facilitate the acquisition of affordable hardware
- Over the long term, re-orient universal service so that a 21st Century Universal Service Fund supports broadband service for low income and relatively high-cost rural users.

**Maximizing the Utilization of Funds**

***Intentionality***

All proposals to use broadband funds should have the "intentionality" -- or purpose and effect-- of serving low-income or underserved / unserved communities and/or one of the statutory purposes set forth in sec. 6001(b) of the American Recovery and Reinvestment Act.[8] Without this explicit intentionality, broadband funds will be applied to target audiences that are far less likely to need these funds. Grant makers should weigh intentionality with regard to whether the application is aimed at one of the statutory purposes and to whether the track record of the applicant and its partners indicates that they will actually fulfill one or more of these worthy purposes.

***Digital Ecosystem with the Home at the Center***

In the 21st century, broadband must be thought of as a 24/7 proposition. To achieve this goal, we ought to create a Digital Ecosystem; a "meet you where you are" 24/7 interface compromised of the home, school, workplace, and community through the added feature of mobility.

Importantly, the home must be at the center of this ecosystem. For a small business or 21st Century employee with school age children, working at home at least part of the week is no longer a desirable option; it is often a necessity. For a student, parental interaction and education is vital to a healthy education. Broadband in schools and, lastly, in community centers and libraries, enabling the next generation of in-class technology and applications, is also key to this ecosystem and to creating a culture of positive broadband use.

America must make an affirmative decision to put the poor first in line for broadband when it thinks of creating a 21st Century ecosystem. Emphasizing

[8] Section 6001 (b) provides that the purposes of the Broadband Technology Opportunities Program are (1) to provide access to broadband service to consumer residing in unserved areas; (2) provide improved access to consumer residing in underserved areas; and (3) provide broadband education, awareness, training, access, equipment, and support to – among other entities – "organizations and agencies that provide outreach, access, equipment, and support-services to facilitate greater use of broadband service by low-income, unemployment, aged, and otherwise vulnerable populations."

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alternative means of broadband access over home usage will have the unintended consequence of depriving low-income Americans of the benefits of broadband where they need it the most. With the home at the center, important services such as telemedicine, job training, distance learning, and basic education will benefit those most in need.

***Affordability***

As the Pew study demonstrates, in order for broadband to reach low-income and existing dial-up user populations, it must be made affordable through free or low-cost hardware and free or low-cost provision of broadband service.

Affordability should not mean a reduction in the quality of service or the quality of content. To be affordable in the long-run, programs should also provide a path for low-income populations to pay for broadband services over time. Elements that will improve the long-term affordability of broadband include:

- Digital literacy programs to train the target population in digital technology usage in ways that promote economically productive uses and that make consumers aware of free broadband applications that can replace other expensive alternatives
- Relevant content and online applications to promote economic well-being
- Long-term reduction of costs for broadband, including innovations, such as wireless mesh deployments that will drive down costs in rural areas while providing high quality service
- Competition in the provision of broadband
- Paths toward low-income user self-payment in pricing models
- Micro-lending for hardware
- Rebalancing of Universal Service Fund support and targeting of USAC support for sustainable broadband service to lower-income communities

***Public / Private Partnerships and Leverage***

There is no question that given the size and dramatic socio-economic variations of the United States, $7.2 billion is at most a down-payment on realizing the Administration's important broadband agenda.

For this reason, ARRA provides for a 20% local match to NTIA funds. We believe that the Rural Utilities Service (RUS) grant programs should also leverage outside funding sources, as without this, RUS programs will fail to maximize the enormous potential of the stimulus funds.

By the same token, RUS and NTIA grant programs should encourage and require partnerships to leverage funds and enhance program or service delivery. It is vital to draw upon other funding streams to obtain the greatest return on stimulus funds. The partnerships may include any combination of:



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- Local and state governments
- National, regional, or local NGOs
- Other federal programs, such as low-income housing tax credits (IRS Section 42) or other public finance initiatives that involve public housing construction and modernization
- Private sector funds and deployment expertise.

Grant programs should prefer applications by partnerships whose members already have a proven record of success. For example, the strongest broadband deployment grants will include applicants or partners who have a clear and strong record of success deploying network facilities.

With regard to governmental and non-profit partners, we urge RUS and NTIA to favor organizations that demonstrate strong technology proficiency, a track record of quality implementation, fiscal responsibility, and a commitment to efficiency.

***Innovation***

Innovation is an approach, device, or program that extracts a definable public benefit (consistent with the goals of ARRA) in light of the resources requested. Innovation may apply to new or original items, but it must avoid untested experiments with a low probability for success. In light of the ARRA, innovation should be confined to utilizing proven technology and delivery mechanisms to deliver maximum benefits to the target population.

***Sustainability***

The government should invest in sustainable programs that will continue to yield positive results until the programmatic goals are met. RUS and NTIA ought to avoid "single shot" or one-time only initiatives that fail to advance longer-term broadband adoption. Applicants ought to be required to submit a sustainability plan or strategy for requested initiatives.

**Technology and Mapping**

***Technology Agnostic***

The purpose of the broadband stimulus programs is to provide high-speed delivery to the greatest number of people possible; however, it is important to note that in contrast to the initial House version of the program, the version enacted was entirely technology neutral and avoided bias toward any type of technology. Whether the technology is wireless, wireline, cable, WiMax / WiFi, or any other delivery technology, the technology should be judged based upon whether it ensures that broadband is available, affordable, and adopted. Solutions eligible for funding should be expansive, not restrictive. Administration of the program should be carried out without bias toward any technology or any particular technology

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partner, and should focus on sustainable, innovative solutions for the target audience.

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***Broadband Speed***

The role of stimulus funds must be to provide broadband to the largest number of people. The vast majority of people without broadband are low-income. If we were to mandate advanced speeds alone, we would perpetuate the practice of pricing out underserved sectors of society or devoting excessive stimulus dollars to provide service to a relatively small number of users. This would not accomplish the goal of the stimulus funds.

We should however give preference to those who show the means and the intent to promulgate higher speeds in accordance with innovation and upgrades in technology. Enhanced speed and bandwidth is essential for service to health care institutions, schools, libraries, community colleges, economic development zones and public safety institutions. When possible, an upgrade path to higher speed technology should also be considered

***Mapping***

Mapping should build on efforts already undertaken at the state level. It should focus first on unserved areas or areas where there are known or assumed to be a single provider or a very small number of competitors.

In addition, mapping ought to be conducted as part of a comprehensive strategy and should not be implemented as a stand-alone operation. Mapping must intentionally link to adoption and broadband deployment and avoid being an activity in and of itself.

Additionally, the preponderance of information aggregated should also be made available to the public. A high level of transparency is essential to ensuring maximum benefit from mapping. In addition, public feedback should be permitted to refine mapping data over time and to ensure that this data is trusted by the public. Mapping should be a public resource.

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**Page 4: [1] Deleted** **Eddie Choi** **4/10/2009 11:47:00 AM**

Broadband adoption programs must focus on increasing adoption in the home. Residential users are a critical part of demand for additional backhaul capacity that will be constructed with broadband grant dollars. Connecting residential users to broadband networks will also make home delivery of important services, such as telemedicine, job training, and distance learning possible. Emphasizing other means of broadband access will have the unintended consequence of depriving low-income Americans of the benefits of widely available broadband access. Work, health, and educational needs often extend from the institution into the home in a way that seemed unfathomable just fifteen years ago.

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*Home Broadband Adoption 2008*

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http://www.pewinternet.org/~/media//Files/Reports/2008/PIP_Broadband_2008.pdf

**Page 8: [4] Deleted** **Ken** **4/13/2009 11:27:00 AM**

Given the finite amount of money available for broadband in an era of many pressing national priority, innovation involves extracting the most benefits from available resources. The benefits accrued from innovation in broadband should be applied to affordability, availability, and adoption, as they as apply to the needs of low-income populations. **I DON'T UNDERSTAND THIS**

Innovation should be measured in terms of its practical effect. Taxpayer dollars should not be spent on untested experiments. Instead, they should be devoted to

expanding innovative programs that have already proven themselves to be successful on a smaller scale and are very likely to scale well, or that leverage multiple, distinct resources. Examples of innovative solutions include:

Affordability and Innovative Government Fiduciary Policy: Utilizing tax credits for housing to lower the cost of broadband in public and affordable housing
Innovative Service Provision: Working with WiMax and similar wireless mesh solutions or satellite solutions **DO WE WANT 1-WAY BROADBAND FUNDED?** to creatively deliver affordable broadband to rural communities
Innovation in Community Collaboration: Involving the community groups or local non-profits in the development of content and deployment plans targeted to the needs of their community
Technology innovations that provide more efficient or more effective delivery mechanisms or devices.

**Page 8: [5] Deleted** **Ken** **4/13/2009 12:23:00 PM**

As explained above, adoption programs are critical to sustainable build-outs in the sorts of economically marginal areas that are the focus of the RUS and NTIA broadband programs.

For a broadband solution to be sustainable, it must:

Have sufficient adoption to make operating expenses viable
Provide both a short and a long-term affordability path
Promote digital literacy in order to increase the utility of broadband
Deliver relevant content to the target population
Involve the target population in the creation of content, new applications, social uses, creation of compelling online communities, and other services
Secure involvement by targeted populations

**Page 8: [6] Deleted** **Eddie Choi** **4/10/2009 11:43:00 AM**

## Intentionality

Broadband deployment is not an end in itself. It is the economic and social benefits of greater broadband penetration that made the broadband one of the "national priorities" of the Presidential transition and of ARRA.

In particular, Pproposals grams seeking to use broadband funds should have the "intention[ality"] -- or purpose and effect -- of serving low-income or underserved / unserved communities and/or one of the statutory purposes set forth in sec. 6001(b)(3) of the American Recovery and Reinvestment Act.[1] Without this explicit intentionality, broadband funds will be applied to target audiences that [neither requested nor ] are far less likely to need the application of these funds. Further, this intentionality applies not just to the motive but also to the likely impact of a given application. Grant makers should weigh apply this notion of intentionality with regard to whether both the intent of the application is aimed at one of the statutory purposes and to whether the track record of the given applicant and its partners indicates that they will actually fulfill one or more of these worthy purposes.

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## Affordability

As the Pew study demonstrates, Iin order for broadband to reach the target low-income and existing dial-up user populations, it must be made affordable for to that population through free or low-cost hardware and free or low-cost provision of broadband service [Internet provision] .

Yet, aAffordability should not be accompanied by a reduction in the quality of service or content provision. In order to be However, Tto further be sustainable, the given program shouldprograms should ought to also provide a path for that target populationfor low-income populations to begin to pay for broadband services in over the long-haul. Elements that will improve the sustainability long-term affordability of broadband include:

[1] These are _**[List]**

Long-term reduction of costs for broadband, including innovations, such as wireless mesh deployments that will drive down costs in rural areas while providing high quality service
Competition in the provision of broadband
Paths toward low-income user self-payment in pricing models THIS IS A BIT VAGUE. HOW TO GET THERE?
Digital literacy programs, to help train the target population in digital technology usage in ways that promote economically productive uses and that make consumers aware that of how broadband applications can replace other paid media services that many low income users pay for
Relevant content and online applications to stimulate usage
Rebalancing of Universal Service Fund support and targeting of USAC support for sustainable broadband service to lower-income communities

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Solutions must work but the list of s

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***Sustainability***

*As explained above, adoption programs are critical to sustainable build-outs in the sorts of economically marginal areas that are the focus of the RUS and NTIA broadband programs.*

*In order fFor a broadband solution to be sustainable, it must:*

*Have sufficient adoption to make operating expenses viable*
*Provide both a short and a long-term affordability path*
*Promote digital literacy in order to increase the utility of broadband*
*Deliver relevant content to the target population*
*Involve the target population in the creation of content, new applications, social uses, creation of compelling online communities, and other services*
*Utilize the target population and targeted locations as active propogrators of broadband*
*If available, provide a path to enhanced bandwidth over time so that low-income groups have access to next-generation applications without having to fully scrap original technologyProcureSecure involvement by targeted populations*

***Innovation***

*Given the finite amount of money available for broadband in an era of many pressing national priority, Iinnovation for innovation's sake should not be theinvolves goal of the broadband stimulus program. extracting the most benefits from available resources. Within broadband, tThe benefits accrued from innovation in broadband*

*should be applied to affordability, availability, and adoption, as they as apply to the needs of low-income populations.* ***I DON'T UNDERSTAND THIS***

***Innovation should be measured in terms of its practical effect. Taxpayer dollars should not be spent on untested experiments. Instead, they should be devoted to***

*Examples In fact, un-proven "experiments" should not be the goal, yet solutions that expanding an already innovative programs that have already proven themselves to be AND successful on a smaller scale and are very likely to scale well, or that program and/or leverage multiple, distinct resources. should be pursued in earnest. Examples of innovative solutions include:*

*Affordability and Innovative Government Fiduciary Policy: Utilizing tax credits for housing to lower the cost of broadband in public and affordable housing*

*Innovative Service Provision: Working with WiMax and similar other wireless mesh solutions or satellite solutions* ***DO WE WANT 1-WAY BROADBAND FUNDED?*** *to creatively deliver affordable broadband to rural communities*

*Innovation in Community Collaboration: Involving the community groups or local non-profits in the development of content and deployment plans targeted to the needs of their community*

*Technology Iinnovations can also be applied to the that provide more efficient or more effective delivery mechanisms or devices, the technology, or other means of provision.*

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*We must exercise caution and avoid un-proven "experimental" ideas that lack any tangible impact or measurable results, yet solutions that expand an already innovative AND successful program and/or leverage multiple, distinct resources should be pursued in earnest.*

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***Digital Ecosystem***

*For broadband to be successful, we need to envision a digital ecosystem comprised of the home, the school, community centers, job sites, and mobile devices. In order for broadband to be successful, targeted populations need 24/7 access to broadband, and this access is most readily available in the home and, in the coming years, through mobile devices.In the 21st century, broadband must be thought of as a 24/7 proposition. To achieve this goal, we ought to create a Digital Ecosystem; A "meet you where you are" 24/7 interface compromised of the home, school, workplace, and community through with the added features of mobility.*

*For a small business or 21st Century employee with school age children, working at home at least part of the week is no longer an desirable option; it is often a necessityrequirement. For a student, parental interaction and education is vital to a*

*healthy education. Broadband in schools and, lastly, in community centers, enabling the next generation of in-class technology and applications, is also key to this ecosystem and to creating a culture of positive broadband use around broadband. However, denying low-income citizens access to broadband in the home would be paternalistic, anti-stimulative, and regressive.America ought to make an affirmative decision to put the poor first in line for broadband and that must include the home for a real 21st century Digital Ecosystem.*

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Though it is important to have a path to next-generation technologies, as 4G, and advanced broadband speeds to accommodate data-heavy transfers,

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Having said thatHowever, we are convinced do believe that the FCC's definition of 200kbps is dated and too slow to deliver sufficient benefitdoes not account for the exponential growth in broadband speeds, and would recommend that bi-directional 768kbps service be considered as the threshold speed.

We also believe that further enhanced speeds should be considered whenever economically feasible, and that they are

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In many cases, We also believe that an hardware upgrades, such as bundling copper pairs to boost speeds delivered over copper lines to broadband speed, path should already be considered, so that existing plant original technology will does not have to be fully scrapped, thereby setting up another cost impediment to low-income groups getting access to increased bandwidth and next generation applications.

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Mapping is obviously very important to guiding government grant-making. Where possible,

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**[THIS PARAGRAPH ISN'T CLEAR. DOES THIS RELATE TO DEPLOYMENT? SHOULD MAPPING GATHER INFO HELPFUL FOR ADOPTION STRATEGIES?]**
Mapping without a demand solution is building a bridge to nowhere. Only when fed into an accessibility and adoptability strategy can a mapping strategy yield results, much less yield sustainable programs.

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**Underserved**

Underserved communities are those communities where although broadband may beis available, but it is either not affordable and/or notit has not been adopted adopted *by*by a preponderance of the targeted population. An underserved community has an average adoption rate lower than that of the national average. The low adoption rate may be is caused by any combination of the following: low awareness of broadband; lack of relevant content/support; pricing beyond the means of the target consumer; and/or a low level of competition. In nearly all cases, these communities are low-income communities (urban and rural), where the price of broadband is too high, awareness of the benefits of broadband is too low, and relevant, targeted content is nearly unavailable.

In order for these underserved communities to become served, we need to:to facilitate underserved communities, the following sorts of measures will cultivate and prolong adoption in underserved communities:

- Lower the price of broadband via stimulus funds and creative public/private partnerships that further offset the cost
- Increase the awareness of the benefits of broadband
- Promote digital literacy to increase the ability to utilize broadband
- Introduce relevant content to provide a gateway into the benefits of the Internet
  - Over the long term, re-orient universal service so that a 21st Century USF supports broadband service for low income and relatively high-cost rural users.

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**Unserved**

Unserved communities are those communities where two-way broadband is not available to a preponderance of the targeted population or is priced so high (in excess of $60/month) to effectively make it unavailable to a preponderance of the targeted population. In these primarily rural communities, broadband needs to be provided through more creative means (often through wireless) or heavily subsidized in order to attract access providers. The cost of the subsidy in unserved areas will generally be more than the cost of the subsidy in underserved areas, so we will likely get less "bang for the buck" in these areas and must spend wisely. In addition to providing access and making it affordable, we still have to employ adoption strategies, though, or these funds will be poorly spent.

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**Administration of Stimulus Funds**

To ensure the most efficient administration of funds, there are two points of consideration that can ensure efficient and fair best practices.

***No State Bias***

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Grants should be given to entities companies that maximize the use of funds, minimize the cost to government, provide multiplier and sustainable effects, and are proven providers of associated the proposed programs. This grant-making authority should make heed no distinction between various competing entities, such as non-profit, private corporation, state or local organization. **Do you mean to say that governments shouldn't get preference? If so, text below may make that point in a good way.**

> In particular, government applications should not receive a preference in the grant process. The views of State CIOs or PUC Chairs who have a strong commitment to advancing broadband penetration and a high level of knowledge of State should be given weight in considering broadband applications by third parties that relate to their State. However, state and municipal applicants should not be given preference over other applicants.

***Capacity Building***

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Funded projects should place significant emphasis on the need for capacity building. **DEFINE** There should be a focus on encouraging capacity building at both the community and partner level. These efforts could can include training and equipping community members to further the impact of the initial project and providing relationships and opportunities to leverage the benefits of the project for further growth and expansion. Grants should be delivered to companies **WHAT ABOUT NON-PROFITS?** that encourage both effective partnerships and capacity building within these partnerships.

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**Mapping**

Mapping is obviously very important to guiding government grant-making. Where possible, mapping should build on efforts already undertaken at the state level. It should focus first on unserved areas or areas where there are known or assumed to be a single provider or a very small number of competitors.

In addition, The process of mapping needs to be conducted as part of a comprehensive strategy and must not be implemented as a stand-alone operation. **[THIS PARAGRAPH ISN'T CLEAR. DOES THIS RELATE TO DEPLOYMENT? SHOULD MAPPING GATHER INFO HELPFUL FOR ADOPTION STRATEGIES?]** Mapping without a demand solution is building a bridge to nowhere. Only when lfed into an accessibility and adoptability strategy can does a mapping strategy yield any results, much less yield sustainable programs. Mapping should focus first on unserved areas or areas where there is known or assumed to be zero to a small number of competitors.

Additionally, the preponderance of information aggregated should also be made visible to the public. A high level of transparency is essential to ensuring maximum benefit and clarityfrom mapping and allowing public feedback to refine mapping data over time and, along with delivering data a product that are trusted by the publicis in line with the public trust.